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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,187	12/01/2000	Mark G. Crawford	SST/1083	4508
498	7590	07/18/2008		
JAMES R. CYPHER 405 14TH STREET SUITE 1607 OAKLAND, CA 94612			EXAMINER KATCHEVES, BASIL S	
			ART UNIT	PAPER NUMBER
			3635	
			MAIL DATE	DELIVERY MODE
			07/18/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/728,187	<b>Applicant(s)</b> CRAWFORD ET AL.	
	<b>Examiner</b> BASIL KATCHEVES	<b>Art Unit</b> 3635	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2 and 4-17 is/are allowed.
- 6) ☒ Claim(s) 3,18-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date: _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/8/07, 10/2/03</u> .                                         | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 31 recites the limitation "said truss" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 25, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,201,627 to Biedenbach.**

Regarding claims 25, 26, Biedenbach discloses a multi ply wood structure (24, 26) with screw fasteners (abstract line 1), the screw having a distal threaded portion (fig. 3: threaded bottom end) and a non threaded portion with greater diameter (upper portion 28), a head (30), a pointed recess (bottom tip recess between point tip and thread) for cutting into wood and a means for preventing splitting (10). Also, Biedenbach discloses bores in the wood pieces with a lower bore smaller than the upper boar (bore of 24 smaller than bore of 26).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 3, rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.**

**Patent No. 5,201,627 to Biedenbach.**

Regarding claim 3, Biedenbach discloses a multi ply wood structure (24, 26) with screw fasteners (abstract line 1), the screw having a distal threaded portion (fig. 3: threaded bottom end) and a non threaded portion with greater diameter (upper portion 28) and a means for preventing splitting (10). Also, Biedenbach discloses bores in the wood pieces with a lower bore smaller than the upper bore (bore of 24 smaller than bore of 26). Biedenbach does not disclose the bores as formed in the wood. It would have been obvious to one having ordinary skill in the art at the time the invention was made to prebore the screw holes since it is well known in the art to predrill pilot holes in wood to prevent splitting of the wood along its grain.

**Claims 18, 27-30, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,201,627 to Biedenbach as in view of U.S. Patent No. 2,911,690 to Sanford.**

Regarding claim 18, Biedenbach discloses the screw as used between two pieces of wood in a shear connection (fig. 3). However, Biedenbach does not disclose the multi ply structure as being a truss. Sanford discloses the use of a wooden truss

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with fasteners. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Biedenbach by using the screws on a wooded truss, as disclosed by Sanford, since Sanford discloses the need for fasteners (fig. 1: 35).

Regarding claim 27, Biedenbach does not disclose the wood as edge to edge and face to face, just face to face. Sanford discloses a truss made of wood being face to face and edge to edge (fig. 1) with fasteners. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Biedenbach by aligning the wood in a manner such as Sanford as an obvious design choice in building a truss.

Regarding claim 28, Biedenbach discloses a pointed end on the extremity of the shank.

Regarding claim 29, Biedenbach discloses a recess on the end (see recess formed between end point and last thread on left side of figure 3).

Regarding claim 30, Biedenbach does not disclose the bores as formed in the wood. It would have been obvious to one having ordinary skill in the art at the time the invention was made to prebore the screw holes since it is well known in the art to predrill pilot holes in wood to prevent splitting of the wood along its grain.

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**Claims 19-24, 31-36, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,201,627 to Biedenbach as in view of U.S. Patent No. 2,911,690 to Sanford further in view of U.S. Patent No. 4,580,780 to Gautraud et al.**

Regarding claims 19-24, 32-36, Biedenbach in view of Sanford disclose the use of screws in the construction of trusses. However, Sanford does not disclose in great detail the truss structure. Gautraud discloses a truss having parallel, diagonal and vertical chords. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to change the shape of the truss in Sanford because a change in shape is within the level of ordinary skill in the art absent persuasive evidence that the particular configuration is significant (see MPEP 2144.04 (IV) (B)). It would also have been obvious to shape a truss in a manner to support the particular building design of a particular application. Also, the application of screws to specific locations in the truss would have been an obvious design choice.

Regarding claim 31, the truss of Gautraud is inherently capable of being used as a floor.

***Allowable Subject Matter***

Claims 1, 2, 4-17 are allowed for containing the limitations drawn to the fastener in wood shear connection as claimed with dull edged knurls.

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***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited patents listed on the included form PTO-892 further show the state of the art with respect to fasteners in general.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Basil Katcheves whose telephone number is (571) 272-6846. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot, can be reached at (571) 272-6777.

/Basil Katcheves/

Primary Examiner, Art Unit 3635